

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU03/00828

A. CLASSIFICATION OF SUBJECT MATTER												
Int. Cl. ⁷ : H04R 25/00; A61N 1/05												
According to International Patent Classification (IPC) or to both national classification and IPC												
B. FIELDS SEARCHED												
Minimum documentation searched (classification system followed by classification symbols)												
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched												
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WPAT, USPTO, Esp@cenet: cochlea, bionic, implant, electrode, array, basal, anchor, attach, secure and similar terms												
C. DOCUMENTS CONSIDERED TO BE RELEVANT												
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.										
X	US 6498954B1 (KUZMA et al), 24 December 2002 column 5, line 41 to column 6, line 7 and figures 5, 6	1 - 26										
X	US 6308101B1 (FALTYS et al), 23 October 2001 figure 6	1, 15, 22 and 26 at least										
X	US 6259951B1 (KUZMA et al), 10 July 2001 figure 1	1, 15, 22 and 26 at least										
X	US 6163729A (KUZMA), 19 December 2000 column 6, line 65 to column 7, line 17 and figure 2	1 - 26										
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex												
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"E" earlier application or patent but published on or after the international filing date</td> <td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	"P" document published prior to the international filing date but later than the priority date claimed	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention											
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art											
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family											
"P" document published prior to the international filing date but later than the priority date claimed												
Date of the actual completion of the international search 25 August 2003		Date of mailing of the international search report - 2 SEP 2003										
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929		Authorized officer MANISH RAJ Telephone No : (02) 6283 2175										

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/71063A1 (COHLEAR LIMITED), 30 November 2000 page 6, lines 1-10, figures 7a-7d	1 - 26
X	US 6119044A (KUZMA), 12 September 2000 column 10, lines 32 - 39, figures 3, 4, 15, 16	1 - 26
X	WO 97/26943A1 (ADVANCED BIONICS CORPORATION), 31 July 1997 page 10, lines 10-13, figure 1	1, 15, 22 and 26 at least
X	WO 96/31087A1 (COHLEAR LIMITED), 3 October 1996 page 28, lines 10-31, figures 20, 21	1 - 26

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Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos :
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos :
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Refer to the continuation sheet....

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1 - 26 only

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: II

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are *three (3)* different inventions as follows:

1. Claims 1-26 are directed to "*a implantable electrode array for insertion*" including the following features:

- (i) an elongate carrier having a proximal end and a distal end,
- (ii) a plurality of electrodes supported by the carrier,
- (iii) a stabilising or anchoring means extending outwardly from the elongate carrier, and
- (iv) the collar means having an abutment surface to abut at least a portion of the surface of the cochlea and prevent movement of the carrier following insertion of the array into the cochlea.

It is considered that "*stabilising collar means having an abutment surface to prevent movement of the carrier following insertion of the array into the cochlea*" comprises a first "special technical feature".

2. Claims 27-32 are directed to "*an implantable component of a cochlear implant system*" including the following features.

- (i) a housing for a stimulator unit,
- (ii) a first elongate electrode assembly,
- (iii) a second elongate electrode assembly, and
- (iv) wherein only one of the first and second electrode assemblies is insertable into cochlea at any particular time.

It is considered that "*only one of the first and the second electrode assemblies is insertable onto the cochlea at any particular time*" comprises a second "special technical feature".

3. Claims 33-35 are directed to "*a method of operating a cochlear implant system*" including the following features:

- (i) a housing for a stimulator unit,
- (ii) an elongate electrode assembly,
- (iii) the assembly having a proximal end and a distal end and comprising of a plurality of electrodes,
- (iv) one or more of the electrodes closer to the proximal end being adapted to provide stimulation to the basilar region of the cochlea,
- (v) one and more of the electrodes relatively closer to the distal end being adapted to provide stimulation to a location beyond the first basal turn of the cochlea, and
- (vi) when recipient is unable to hear relatively high frequency sounds only activating those one or more electrodes adapted to provide stimulation to the basilar region of the cochlea.

It is considered that "*one or more of the electrodes closer to the proximal end being adapted to provide stimulation to the basilar region of the cochlea and one and more of the electrodes relatively closer to the distal end being adapted to provide stimulation to a location beyond the first basal turn of the cochlea and activating those one or more electrodes*" comprises a third "special technical feature".

Since the above mentioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept, a priori.

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Information on patent family members

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member			
US	6498954	NONE			
US	6308101	US	6067474	US	6272382
		EP	999874	WO	9906108
US	6259951	AU	200047129	CA	2370860
		WO	200069512	AU	200048460
		EP	1185332	US	6309410
		US	6038484	US	6078841
		US	6129753	US	6144883
		US	6163729	US	6195586
		US	6321125	US	6397110
		CA	2362478	EP	1159027
		US	6266568	AU	92074/98
		EP	1009475	US	6045993
		WO	9911321	US	6070105
		CA	2324978	EP	1082466
		US	6228577	AU	200046550
		EP	1173250	WO	200064529
WO	200071063	AU	40241/99	CA	2374037
		US	6421569	US	2002029074
WO	9726943	CA	2243632	US	6112124
WO	9631087	AU	50964/96	CA	2216703
		US	5545219	US	5645585
END OF ANNEX					